MINUTES OF THE MEETING
OF THE DISPOSAL SUBCOMMITTEE
OF THE BLUE RIBBON COMMISSION
ON AMERICA'S NUCLEAR FUTURE
AT THE ASPO HARD ROCK LABORATORY IN
OSKARSHAMN, SWEDEN
ON OCTOBER 25, 2010

MEMBERS PRESENT:

JONATHAN LASH, Chair
VICKY BAILEY
SUSAN EISENHOWER
ALLISON MacFARLANE
PER PETERSON

Mats Ohlsen, Director of the Aspo Hard Rock Laboratory, presented an introduction of the facility. SKB's first Research, Development and Demonstration program called or the creation of a testing facility at repository depth and with suitable conditions. Communities were assured repeatedly that the test facility would not become a storage or repository facility. The Aspo site has many advantages including its geological conditions, the pre-existing infrastructure and proximity to the Clab facility.

The period of pre-construction ran from 1986 to 1990 and included regional investigations, as well as surface and borehole characterization and formulation of predictions. The construction period ran from 1990 to 1995, including excavation, detailed investigation, evaluation of predictions, detailed characterization and modeling of groundwater flows. The period of operation began in 1995 and extends to the present. Model testing and demonstration of technology and function are ongoing. Overall, the role of the facility is to develop and demonstrate repository technology and techniques, test alternative technologies to improve and simplify design, increase understanding of margins, provide experience and training for workers and to provide information to the public on technology and methods.

There are offices for 100 people above-ground. There are also facilities for hydrological monitoring, a hydrochemistry laboratory, a bentonite clay laboratory and an exhibition hall. Up to 12,000 visitors have seen the site in one year.

Drilling machines were found to be superior to blasting rock techniques. Tests are ongoing for long-term heating of bentonite and spalling mechanisms. A full-scale prototype repository has been constructed containing six inactive canisters heated electrically. Scientists will begin testing the media in this experiment next year. They are also testing a second-generation deposition machine. Some 170 machines and pieces of equipment need to be developed using work performed at Aspo over the next 50 years. While the repository will be vertical-storage, testing of horizontal geometries is also done. Vertical storage is more developed in Sweden than horizontal. Olle Ohlson said that KBS-3 horizontal methods are being developed.

Improvements to design and practice continue and the law requires keeping up with

development and incorporation of the best technologies. International cooperation is important at the facility, as are public relations, with summer tour efforts and programs for the municipality and universities.

The meeting adjourned at 9:14 a.m.